STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0068101; AI 20076; PER20090001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** Washington Parish Government
Choctaw Road Landfill
22249 Choctaw Road
Franklinton, LA 70438

II. **PREPARED BY:** Rachel Davis

DATE PREPARED: March 9, 2010

III. **PERMIT ACTION:** reissue LPDES permit LA0068101, AI 20076; PER20090001

LPDES application received: June 9, 2009

EPA has not retained enforcement authority.

LPDES permit issued: January 1, 2005
LPDES permit expired: December 31, 2009

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of non-contact stormwater, treated leachate, treated equipment washwater, treated sanitary wastewater, and treated contact stormwater from a municipal soild waste landfill serving Washington Parish.

B. The facility is located on Choctaw Road in Franklinton, Washington Parish.

C. The treatment facility consists of an aerated lagoon with disinfection by chlorination.

D. Outfall 001

Discharge Location: Latitude 30° 50' 30" North
Longitude 90° 2' 45" West

Description: non-contact stormwater

Expected Flow: 0.0008 MGD

Type of Flow Measurement which the facility is currently using:
Estimation based on calculations

Outfall 002

Discharge Location: Latitude 30° 50' 54" North
Longitude 90° 2' 45" West

Description: treated leachate, treated equipment washwater, treated sanitary wastewater, and treated contact stormwater

Expected Flow: 0.045 MGD

Type of Flow Measurement which the facility is currently using:
Estimation based on calculations

Outfall 003

Discharge Location: Latitude 30° 50' 54" North
Longitude 90° 2' 49" West

Description: non-contact stormwater

Expected Flow: 0.0003 MGD

Type of Flow Measurement which the facility is currently using:
Estimation based on calculations

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Bett Creek, thence into the Bogue Lusa Creek in segment 090401 of the Pearl River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 090401 of the Pearl River Basin are as indicated in the table below[1/]:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supporting	Not Supporting	Full	N/A	N/A	N/A	N/A

[1/]The designated uses and degree of support for Segment 090401 of the Pearl River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 090401 of the Pearl River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated January 5, 2010 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Rachel Davis
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

Subsegment 090401, Bogue Lusa Creek-Headwaters to the Pearl River, is not listed on LDEQ's Final 2006 303(d) List as impaired. However, subsegment 090401 was previously listed as impaired for pathogen indicators for which the below TMDL has been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 090401:

TMDLs for Fecal Coliforms for subsegments 090101, 090104, 090301, 090401, 090502, 090505 and 090506 in the Pearl River Basin, Louisiana

According to the TMDL "The only permitted discharges that were considered contributors of fecal coliforms were those with sanitary wastewater (i.e., domestic wastewater). For treated sanitary wastewater, LDEQ's policy is to set permit limits for fecal coliforms no higher than water quality criteria for the receiving stream (i.e., criteria are met at "end-of-pipe"). This means that treated sanitary wastewater permits will include limits of 200 colonies/100 mL as a monthly average and/or 400 colonies/100 mL as a weekly average or daily maximum. As long as point source discharges of treated sanitary wastewater contain fecal coliform levels at or below these permit limits, they should not cause any exceedances of water quality criteria in the receiving streams. Therefore, the WLAs for these TMDLs were based on monthly average permit limits of 200 colonies/100 mL with no further load reductions required below these current limits" Therefore the fecal limitation will stay the same as previously permitted.

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
Oil and grease	---	---	15 mg/l	Multisector General Permit-Sector L and previously issued water discharge permits for similar facilities/effluents
TOC	---	---	50 mg/l	Multisector General Permit-Sector L and previously issued water discharge permits for similar facilities/effluents
Total Recoverable Iron	---	---	Report mg/l	Multisector General Permit-Sector L and previously issued water discharge permits for similar facilities/effluents

*Subsegment 090401 is not longer impaired for turbidity, therefore the previous permit report parameter for turbidity has been removed from this permit.

Other Effluent Limitations for Outfall 001:

1) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

OUTFALL 002

Interim limits shall become effective on the effective date of the permit and expire one year after the effective of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
BOD_5	---	20 mg/l	30 mg/l	BPJ based on previous permit limits and from previously issued water discharge permits for similar facilities/effluents
TSS	---	35 mg/l	50 mg/l	BPJ based on previous permit limits and from previously issued water discharge permits for similar facilities/effluents
Chloride	---	---	250 mg/l	LAC 33:IX.1113.C.2 and BPJ from previously issued water discharge permits for similar facilities/effluents
Ammonia-Nitrogen	---	4.9 mg/l	10 mg/l	Effluent Limitations Guidelines, Pretreatment Standards and New Source Performance Standards for the Landfills Point Source Category
Sulfate	---	---	250 mg/l	LAC 33:IX.1113.C.2 and BPJ from previously issued water discharge permits for similar facilities/effluents
Alpha Terpineol	---	0.016 mg/l	0.033 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category
Benzoic Acid	---	0.071 mg/l	0.12 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category
p-Cresol	---	0.014 mg/l	0.025 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category
Zinc	---	0.038 mg/l	0.09 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
Phenol	---	0.015 mg/l	0.026 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category

*Subsegment 090401 is not longer impaired for turbidity and nutrients, therefore the previous permit report parameter for turbidity and total kjeldalh nitrogen (TKN) has been removed from this permit

As per LAC 33:IX.2707.L.2.a.ii, availability of information which was not available at the time of previous permit issuance and will justify the application of less stringent effluent limitations in the proposed permit constitutes an exception to LAC 33:IX.2707.L.1, which states when a permit is renewed or reissued standards or conditions must be at least as stringent as the final limitations, standards, or conditions in the previous permit. In the previous permit, this treatment facility was required to meet effluent limitations for chlordane of 0.12 lbs/day daily maximum. A water quality screen was performed using data from the application and from DMRs from September 2007 through September 2009. The screen did not indicate a need for a limitation for chlordane Therefore, the limitation for chlordane has been removed from this permit. See Appendix B-1 for more information.

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Maximum (lbs/day)	Basis
Total Cadmium*	Report	Report	Water Quality Screen indicated a need for a WQBL. Therefore, for monitoring and data information gathering purposes, Report is proposed in the interim period. See Appendix B-1 for additional information.

**The above draft priority pollutant limits for Total Cadmium are based upon the evaluation of one effluent analysis. The permittee may conduct and submit the results of three (3) or more additional effluent analyses to either refute or substantiate the presence of the above toxic pollutant during the Draft Permit comment period. The additional analyses will be evaluated by this Office to determine if the pollutant is potentially in the effluent and if it potentially exceeds the State's water quality standard

OUTFALL 002

Final limits shall become effective one year after the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
BOD_5	---	20 mg/l	30 mg/l	BPJ based on previous permit limits and from previously issued water discharge permits for similar facilities/effluents
TSS	---	35 mg/l	50 mg/l	BPJ based on previous permit limits and from previously issued water discharge permits for similar facilities/effluents
Chloride	---	---	250 mg/l	LAC 33:IX.1113.C.2 and BPJ from previously issued water discharge permits for similar facilities/effluents
Ammonia-Nitrogen	---	4.9 mg/l	10 mg/l	Effluent Limitations Guidelines, Pretreatment Standards and New Source Performance Standards for the Landfills Point Source Category
Sulfate	---	---	250 mg/l	LAC 33:IX.1113.C.2 and BPJ from previously issued water discharge permits for similar facilities/effluents
Alpha Terpineol	---	0.016 mg/l	0.033 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category
Benzoic Acid	---	0.071 mg/l	0.12 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category
p-Cresol	---	0.014 mg/l	0.025 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
Zinc	---	0.038 mg/l	0.09 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category
Phenol	---	0.015 mg/l	0.026 mg/l	EPA's Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Maximum (lbs/day)	Basis
Total Cadmium*	0.012 lbs/day	0.029 lbs/day	Water Quality Based Limit

Other Effluent Limits:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7

4) Priority Pollutants – General Comments

The treatment facility will be treating leachate, contact stormwater, washwater, and sanitary wastewater. Studies have shown the leachate generated at municipal solid waste landfills can be highly concentrated and variable, and may include the presence of priority pollutants. Contributing to this variability may be the presence of household hazardous waste in the

municipal solid waste stream (EPA, 1987). Pollutants which may be found in leachate include volatile organic compounds, metals and pesticides.

This Office has established a list of priority pollutants with threshold limits intended as action levels. Should a substance exceed the level of the established concentration, the Department is to be notified, in writing, within five (5) days of exceedance and Choctaw Road Landfill shall institute a study to determine the source of the substance. Within sixty (60) days of the written notification the permittee shall submit a written account of the nature of the study, the study results, and measures being taken to secure abatement.

1. Draft Threshold Limits – The draft threshold limits are derived from either technology-based effluent limits or State Water Quality Standards and requirements. The most stringent of these limits is contained in the permit. Technology-based effluent limitations are based on the applicable effluent limitations guidelines, on Best Professional Judgement (BPJ) in the absence of applicable guidelines, or on a combination of these two methods. Currently, there are guidelines for the treatment of leachate from a municipal solid waste landfill and they have been included in the permit in addition to these threshold values. This office intends to employ technology-based effluent limitations taken from previously issued BPJ based water discharge permits for municipal soild waste landfills and other land disposal facilities. Each of the guideline regulations were accompanied by a development document, which provided the support for the final guideline. A water quality screen was performed using receiving stream data (see EDMS document 45333314). This screen was used to establish water quality based limits.

2. Derivation of Threshold Limits

LDEQ/EPA Technology-Based Limits – In the early 1980's the LDEQ and EPA developed effluent limitations for all of the priority pollutants contained in the EPA 2C application for land disposal facilities. Although the limitations were technology-based and derived prior to formal State water quality criteria, water quality considerations played a significant role in the development of the limits.

Priority Metals and Pesticides – The threshold limits established for metals and pesticides are water quality based in accordance with the state water quality criteria (Appendix B-1). Metals for which state criteria have not been promulgated, threshold limits have been established using technology-based effluent limits taken from water discharge permits previously issued to municipal solid waste landfills and other land disposal facilities. In accordance with the water quality standards, there may be no discharge of PCBs.

Chemical	DEQ/EPA Daily Max. ug/l	WQBL Daily Max. ug/l	Threshold Value ug/l	MQL Required ug/l
METALS, CYANIDE, AND TOTAL PHENOLS				
Total Antimony	600		600	60
Total Arsenic	100	563	100	10
Total Beryllium	100		100	5
Total Cadmium	100	3.44	3.44	1
Chromium III	100	590	100	
Chromium VI	100	16	16	10
Total Copper	500	13	13	10
Total Cyanide	100	11.7	11.7	20
Total Lead	150	5.6	5.6	5

METALS, CYANIDE, AND TOTAL PHENOLS (continued)				
Total Mercury	10	0.08	0.08	0.2
Total Nickel (freshwater)	500	206	206	40
Total Selenium	100		100	5
Total Silver	100		100	2
Total Thallium	100		100	10
Total Zinc	1000	107	107	20
Total Phenols	50	15	50	5
VOLATILE COMPOUNDS				
Acrolein	100		100	50
Acrylonitrile	100		100	50
Benzene	100	39.3	39.3	10
Bromodichloromethane	100	10.4	10.4	10
Bromoform	100	109	100	10
Carbon Tetrachloride	100	3.7	3.7	10
Chlorobenzene	100		100	50
Chloroethane	100		100	10
2-Chloroethyl vinyl ether	100		100	50
Chloroform	100	220	100	10
Dibromochloromethane	100	15	15	10
1,1-Dichloroethane	100		100	10
1,2-Dichloroethane	100	21.4	21.4	10
1,1-Dichloroethylene (1,1-Dichloroethene)	100	1.8	1.8	10
1,2-Dichloropropane	100		100	10
1,3-Dichloropropene (1,3-Dichloropropylene)	100	622	622	10
Ethylbenzene	100	3287	100	10
Methyl Bromide (Bromomethane)	100		100	50
Methyl Chloride (Chloromethane)	100	56504	100	50
Methylene Chloride	100	273	100	20
1,1,2,2,-Tetra-chloroethane	100	5.6	5.6	10
Tetrachloroethylene	100	7.8	7.8	10
1,2-*trans*-Dichloroethylene	100		100	10
Toluene	100	1304	100	
1,2-*trans*-Dichloroethylene (1,2-dichloroethene)	100		100	10
1,1,1-Trichloroethane	100	5424	100	10
1,1,2-Trichloroethane	100	21	2	10
Trichloroethylene (Trichloroethene)	100	66	66	10
Vinyl Chloride	100	112	100	10
ACID COMPOUNDS				
2-Chlorophenol (o-Chlorophenol)	100	265	100	10
2,4-Dichlorophenol	100	207	100	10
2,4-Dimethylphenol	100		100	10
2,4-Dinitrophenol	100		100	50
4,6-Dinitro-o-Cresol {4,6-Dinitro-o-phenol} {4,6-Dinitro-2-mehtyl phenol}	100		100	50

Acid Compounds (continued)				
2-Nitrophenol	100		100	20
4-Nitrophenol	100		100	50
P-Chloro-M-Cresol	100		100	
Pentachlorophenol	100		100	50
Phenol	100		100	10
2,4,6-Trichlorophenol	100		100	10
PESTICIDES				
Aldrin	10	0.001	0.001	0.05
Chlordane	10	0.0005	0.0005	0.2
DDD	10	0.0008	0.0008	0.1
DDE	10	0.0005	0.0005	0.1
DDT	10	0.0005	0.0005	0.1
Dieldrin	10	0.0001	0.0001	0.1
Endosulfan	10	0.12*	0.12*	0.1
Endosulfan	10	0.12*	0.12*	0.1
Total Endosulfan		0.24	0.24	0.1
Endosulfan sulfate	10		10	0.1
Endrin	5	0.08	0.08	0.1
Endrin aldehyde	10		10	0.1
Heptachlor	10		10	0.05
Heptachlor Epoxide	10		10	0.05
Hexachlorocyclohexane – (BHC-)	10		10	0.05
Hexachlorocyclohexane – (BHC-)	10		10	0.05
Hexachlorocyclohexane – (BHC-)	10		10	0.05
Hexachlorocyclohexane – (Lindane)	10	0.45	0.45	0.05
Total PCB's	No discharge			1.0
Toxaphene	10	0.0004	0.0004	5.0
BASE/NEUTRAL COMPOUNDS				
Acenaphthene	100		100	10
Acenapthylene	100		100	10
Anthracene	100		100	10
Benzidene	100		100	50
Benzo(*a*)anthracene	100		100	10
3,4-Benzofluoranthene {Benzo(*b*)fluoranthene}	100		100	10
Benzo(*k*)fluoranthene	100		100	10
Benzo(*a*)pyrene	100		100	10
Benzo(*ghi*)perylene	100		100	10
Benzyl butyl Phthalate {Butyl benzyl Phthalate}	100		100	10
Bis(2-chloroethyl)ether	100		100	10
Bis(2-chloroethoxy) methane	100		100	10
Bis(2-ethylhexyl) Phthalate	100		100	10
Bis(2-chloroisopropyl) ether	100		100	10
4-Bromophenyl phenyl ether	100		100	10
2-Chloronaphthalene	100		100	10
4-Chlorophenyl phenyl ether	100		100	10
Chrysene	100		100	10

BASE/NEUTRAL COMPOUNDS (continued)				
Dibenzo (*a,h*) anthracene	100		100	20
Di-*n*-Butyl Phthalate	100		100	10
1,2-Dichlorobenzene	100		100	10
1,3-Dichlorobenzene	100		100	10
1,4-Dichlorobenzene (p-Dichlorobenzidine)	100		100	10
3,3-Dichlorobenzidine	100		100	50
Diethyl Phthalate	100		100	10
Dimethyl Phthalate	100		100	10
2,6-Dinitrotoluene	100		100	10
2,4-Dinitrotoluene	100		100	10
Di-*n*-octyl Phthalate	100		100	10
1,2-Diphenylhydrazine	100		100	20
Fluoranthene	100		100	10
Fluorene	100		100	10
Hexachlorobezene	100	0.0007	0.0007	10
Hexachlorobutadiene	100	0.34	0.34	10
Hexachlorocyclopentadiene	100		100	10
Hexachloroethane	100		100	20
Ideno (1,2,3-*cd*)pyrene	100		100	20
Isophorone	100		100	10
Naphthalene	100		100	10
Nitrobenzene	100		100	10
N-nitrosodimethylamine	100		100	50
N-nitrosodiphenylamine	100		100	20
N-nitrosodi-*n*-propylamine	100		100	20
Phenanthrene	100		100	10
Pyrene	100		100	10
1,2,4-Trichlorobenzene	100		100	10

A number of the threshold limitations established from the criteria are below EPA established minimum quanitification levels (MQL). The MQL is accepted as the lowest concentration at which a substance can be quantitatively measured. Where the permit limits are below the MQL the following is noted in the permit:

If any individual analytical test result is less than the minimum quantification level (MQL) listed above, a value of zero (0) may be used as the test result for those parameters for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

5) Toxicity Characteristics

Based on information contained in the permit application, LDEQ has determined there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream in violation of Section 101(a)(3) of the Clean Water Act. The State has established a narrative criteria which, in part, states that "No substances shall be present in the waters of the State or the sediments underlying said waters in quantities alone or in combination will be toxic to human, plant, or animal life..." (LAC 33:IX.1113.B.5)

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0068101, Part II, Section D for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
Chronic static renewal 7-day survival & reproduction test Using Ceriodaphnia dubia (Method 1002.0)	1/quarter
Chronic static renewal 7-day survival & growth test Using fathead minnow (Pimephales promelas) (Method 1000.0)	1/quarter

Dilution Series – The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in toxicity tests. These additional concentrations shall be 5%, 7%, 9%, 12%, and 16%. The low-flow effluent concentration (biomonitoring critical dilution) is defined as 12% effluent. The critical dilution is calculated in Appendix B-1 of this statement of basis. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in **Part II Section D** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in **Part II Section D** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or waterbody. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2383. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

OUTFALL 003

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
Oil and grease	---	---	15 mg/l	Multisector General Permit-Sector L and previously issued water discharge permits for similar facilities/effluents
TOC	---	---	50 mg/l	Multisector General Permit-Sector L and previously issued water discharge permits for similar facilities/effluents
Total Recoverable Iron	---	---	Report mg/l	Multisector General Permit-Sector L and previously issued water discharge permits for similar facilities/effluents

Other Effluent Limitations for Outfall 003:

1) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0068101: Issued: January 1, 2005
Expired: December 31, 2009

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type
Outfall 001				
Flow	Report	Report	Daily	Estimate
TOC	---	50 mg/l	1/month	Grab
Oil and grease	---	15 mg/l	1/month	Grab
Total Recoverable Iron	---	Report	1/month	Grab
Turbidity	---	Report	1/month	Grab
pH	---	---	1/month	Grab
Outfall 002				
Flow	Report	Report	1/day	Estimate
BOD_5	20 mg/l	30 mg/l	1/month	Grab
TSS	35 mg/l	50 mg/l	1/month	Grab
Ammonia-Nitrogen	4.9 mg/l	10 mg/l	1/month	Grab
Chlorides	---	250 mg/l	1/month	Grab
Sulfates	---	250 mg/l	1/month	Grab
Turbidity	---	Report NTU	1/month	Grab
Total Kjeldalh Nitrogen	---	Report mg/l	1/month	Grab
Fecal Coliform Colonies	200	400	1/month	Grab
pH	---	---	1/month	Grab
Chlordane	---	0.012	1/month	Grab
Pollutant Scan	---	---	1/year	Grab
Alpha Terpineol	0.016 mg/l	0.033 mg/l	1/quarter	Grab
Benzoic Acid	0.071 mg/l	0.12 mg/l	1/quarter	Grab
p-Crestol	0.014 mg/l	0.025 mg/l	1/quarter	Grab
Zinc	0.038 mg/l	0.09 mg/l	1/quarter	Grab
Phenol	0.015 mg/l	0.026 mg/l	1/quarter	Grab

Permit contained biomonitoring requirements
Permit contained stormwater pollution prevention requirements

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates that no inspections have been done in the past two years.

B) Compliance and/or Administrative Orders

A review of the files indicates that no compliance orders have been issued against the facility in the past two years.

C) DMR Review

A review of the discharge monitoring reports for the period beginning **September 2007** through **September 2009** has revealed the following violations:

Period of Excursion	Parameter	Outfall	Permit Limit	Reported Quantity
September 2007	Phenol	002	0.015 mg/l	0.043 mg/l
	Phenol		0.026 mg/l	0.057 mg/l
October 2007	TSS	002	35 mg/l	42 mg/l
	Ammonia		4.9 mg/l	12.8 mg/l
	Ammonia		10 mg/l	12.8 mg/l
November 2007	Ammonia	002	4.9 mg/l	7.0 mg/l
December 2007	Ammonia	002	4.9 mg/l	17 mg/l
	Ammonia		10 mg/l	17 mg/l
	Phenol		0.015 mg/l	0.030 mg/l
	Phenol		0.026 mg/l	0.030 mg/l
	Chlordane		0.012 mg/l	0.250 mg/l
	p-Crestol		0.014 mg/l	0.250 mg/l
June 2008	Ammonia	002	4.9 mg/l	7.9 mg/l
July 2008	Ammonia	002	4.9 mg/l	6.3 mg/l
August 2008	Ammonia	002	4.9 mg/l	5.7 mg/l
September 2008	pH	002	9 mg/l	9.08 mg/l
	TSS		35 mg/l	58 mg/l
	TSS		50 mg/l	75 mg/l
October 2008	TSS	002	35 mg/l	45 mg/l
	TSS		50 mg/l	83 mg/l
November 2008	Ammonia	002	4.9 mg/l	14.5 mg/l
	Ammonia		10 mg/l	18.7 mg/l
December 2008	Ammonia	002	4.9 mg/l	18.7 mg/l
	Ammonia		10 mg/l	18.7 mg/l
	Phenol		0.015 mg/l	0.278 mg/l
	Phenol		0.026 mg/l	0.345 mg/l
January 2009	TSS	002	50 mg/l	60 mg/l
	Ammonia		4.9 mg/l	15.2 mg/l
	Ammonia		10 mg/l	17.7 mg/l
February 2009	Ammonia	002	4.9 mg/l	11.4 mg/l
	Ammonia		10 mg/l	11.7 mg/l
March 2009	Ammonia	002	4.9 mg/l	8.9 mg/l
	Phenol		0.015 mg/l	0.034 mg/l
	Phenol		0.026 mg/l	0.034 mg/l
April 2009	Ammonia	002	4.9 mg/l	7.6 mg/l
May 2009	Ammonia	002	4.9 mg/l	21 mg/l

	Ammonia		10 mg/l	24.1 mg/l
June 2009	Ammonia Phenol Phenol	002	4.9 mg/l 0.015 mg/l 0.026 mg/l	5.3 mg/l 0.124 mg/l 0.124 mg/l
August 2009	Ammonia Ammonia	002	4.9 mg/l 10 mg/l	11.2 mg/l 17.1 mg/l
September 2009	Ammonia	002	4.9 mg/l	9.2 mg/l

*Based on the compliance issues noted above, this facility was referred to the Enforcement Division on March 9, 2010

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b) Controls any pollutant not limited in the permit; or

c) Requires reassessment due to change in 303(d) status of waterbody; or

d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of permit compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of this type

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2009.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2010.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2010.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Washington Parish Government, Choctaw Road Landfill, June 9, 2009.

wqsmodn.wk4 Date: 03/31 Appendix B-1 Page 1
Developer: Bruce Fielding Time: 02:25 PM
Software: Lotus 4.0 LA0068101 AI# 20076
Revision date: 03/11/09

Water Quality Screen for Washington Parish Government/ Choctaw Road Landfill

Input variables:

Receiving Water Characteristics:

Receiving Water Name=	Bett Creek
Critical flow (Qr) cfs=	0.5
Harm. mean/avg tidal cfs=	0
Drinking Water=1 HHNPCR=2	
MW=1, BW=2, 0=n	
Rec. Water Hardness=	25
Rec. Water TSS=	4.575
Fisch/Specific=1,Stream=0	
Diffuser Ratio=	

Effluent Characteristics:

Permittee=	
Permit Number=	LA0066176 AI# 19220
Facility flow (Qef),MGD=	0.045
Outfall Number =	001
Eff. data, 2=lbs/day	
MQL, 2=lbs/day	
Effluent Hardness=	N/A
Effluent TSS=	N/A
WQBL ind. 0=y, 1=n	
Acute/Chr. ratio 0=n, 1=y	0
Aquatic,acute only1=y,0=n	

Page Numbering/Labeling

Appendix	Appendix B-1
Page Numbers 1=y, 0=n	1
Input Page # 1=y, 0=n	1

Fischer/Site Specific inputs:

Pipe=1,Canal=2,Specific=3	
Pipe width, feet	
ZID plume dist., feet	
MZ plume dist., feet	
HHnc plume dist., feet	
HHc plume dist., feet	

Fischer/site specific dilutions:

Dilution =	---
F/specific MZ Dilution =	---
F/specific HHnc Dilution=	---
F/specific HHc Dilution=	---

Dilution:

ZID Fs =	0.1
MZ Fs =	1
Critical Qr (MGD)=	0.32315
Harm. Mean (MGD)=	0.32315
ZID Dilution =	0.5820345
MZ Dilution =	0.1222328
HHnc Dilution=	0.1222328
HHc Dilution=	0.1222328
ZID Upstream =	0.7181111
MZ Upstream =	7.1811111
MZhhnc Upstream=	7.1811111
MZhhc Upstream=	7.1811111
ZID Hardness=	---
MZ Hardness=	---
ZID TSS=	---
MZ TSS=	---

Multipliers:

WLAa --> LTAa	0.32
WLAc --> LTAc	0.53
LTA a,c-->WQBL avg	1.31
LTA a,c-->WQBL max	3.11
LTA h --> WQBL max	2.38
WQBL-limit/report	2.13
WLA Fraction	1
WQBL Fraction	1

Conversions:

ug/L-->lbs/day Qef	0.0003753
ug/L-->lbs/day Qeo	0
ug/L-->lbs/day Qr	0.00417
lbs/day-->ug/L Qeo	2664.535
lbs/day-->ug/L Qef	2664.535
diss-->tot 1=y0=n	1
Cu diss->tot1=y0=n	1
cfs-->MGD	0.6463

Receiving Stream:

Default Hardness=	25
Default TSS=	10
99 Crit., 1=y, 0=n	1
Old MQL=1, New=0	1

Toxicity Dilution Series:

Biomonitoring dilution:	0.1222328
Dilution Series Factor:	0.75

	Percent Effluent
Dilution No. 1	16.298%
Dilution No. 2	12.2233%
Dilution No. 3	9.1675%
Dilution No. 4	6.8756%
Dilution No. 5	5.1567%

Partition Coefficients; Dissolved-->Total

METALS	FW
Total Arsenic	1.7236804
Total Cadmium	4.2825334
Chromium III	4.7373748
Chromium VI	1
Total Copper	2.5443119
Total Lead	4.7952138
Total Mercury	3.3439225
Total Nickel	1.9422459
Total Zinc	2.9725469

Aquatic Life, Dissolved
Metal Criteria, ug/L

METALS	ACUTE	CHRONIC
Arsenic	339.8	150
Cadmium	7.0673855	0.3693189
Chromium III	176.31043	57.19328
Chromium VI	15.712	10.582
Copper	4.9908329	3.7573255
Lead	13.882173	0.5409683
Mercury	1.734	0.012
Nickel	438.06484	48.650614
Zinc	35.357406	32.286674

Site Specific Multiplier Values:

CV =	---
N =	---
WLAa --> LTAa	---
WLAc --> LTAc	---
LTA a,c-->WQBL avg	---
LTA a,c-->WQBL max	---
LTA h --> WQBL max	---

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(*1) Toxic Parameters	(*2) Cu Instream Conc. ug/L	(*3) Effluent /Tech (Avg) ug/L	(*4) Effluent /Tech (Max) ug/L	(*5) MQL ug/L	(*6) Effluent 1=No 0=95 %	(*7) 95th % estimate Non-Tech ug/L	(*8) Numerical Criteria Acute FW ug/L	(*9) Chronic FW ug/L	(*10) HHNDW ug/L	(*11) HH Carcinogen Indicator "C"
NONCONVENTIONAL										
Total Phenols (4AAP)			7.4	5	0		700	350	50	
3-Chlorophenol				10						
4-Chlorophenol				10			383	192		
2,3-Dichlorophenol				10						
2,5-Dichlorophenol				10						
2,6-Dichlorophenol				10						
3,4-Dichlorophenol				10						
2,4-Dichlorophenocy-acetic acid (2,4-D)				---						
2-(2,4,5-Trichlorophen-oxy) propionic acid (2,4,5-TP, Silvex)				---						
METALS AND CYANIDE										
Total Arsenic				10			585.70661	258.55207		
Total Cadmium			6.7	1	0		30.266314	1.5816205		
Chromium III				10			835.24858	270.946		
Chromium VI				10			15.712	10.582		
Total Copper				10			12.698236	9.559808		
Total Lead				5			66.567987	2.5940589		
Total Mercury				0.2			5.7983616	0.0401271		
Total Nickel				40			850.82964	94.491456		
Total Zinc			29.8	20	0		105.10155	95.973652		
Total Cyanide				20			45.9	5.4	12844	
DIOXIN										
2,3,7,8 TCDD; dioxin				1.0E-05					7.2E-07	C
VOLATILE COMPOUNDS										
Benzene				10			2249	1125	12.5	C
Bromoform				10			2930	1465	34.7	C
Bromodichloromethane				10					3.3	C
Carbon Tetrachloride				10			2730	1365	1.2	C
Chloroform				10			2890	1445	70	C
Dibromochloromethane				10					5.08	C
1,2-Dichloroethane				10			11800	5900	6.8	C
1,1-Dichloroethylene				10			1160	580	0.58	C
1,3-Dichloropropylene				10			606	303	162.79	
Ethylbenzene				10			3200	1600	8100	
Methyl Chloride				50			55000	27500		
Methylene Chloride				20			19300	9650	87	C
1,1,2,2-Tetrachloro-ethane				10			932	466	1.8	C

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(*1) Toxic Parameters	(*12) WLAa Acute	(*13) WLAc Chronic	(*14) WLAh HHNDW	(*15) LTAa Acute	(*16) LTAc Chronic	(*17) LTAh HHNDW	(*18) Limiting A,C,HH	(*19) WQBL Avg 001	(*20) WQBL Max 001	(*21) WQBL Avg 001	(*22) WQBL Max 001	(*23) Need WQBL?
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	lbs/day	lbs/day	
NONCONVENTIONAL												
Total Phenols (4AAP)	722.6205	463.1025	66.1575	231.23856	245.44433	66.1575	66.1575	66.1575	157.45485	0.5517536	1.3131734	no
3-Chlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
4-Chlorophenol	395.37665	254.0448	---	126.52053	134.64374	---	126.52053	165.74189	393.47884	1.3822874	3.2816135	no
2,3-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,5-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,6-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
3,4-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,4-Dichlorophenocy-acetic acid (2,4-D)	---	---	---	---	---	---	---	---	---	---	---	no
2-(2,4,5-Trichlorophen-oxy) propionic acid (2,4,5-TP, Silvex)	---	---	---	---	---	---	---	---	---	---	---	no
METALS AND CYANIDE												
Total Arsenic	604.63372	342.10317	---	193.48279	181.31468	---	181.31468	237.52223	563.88865	1.9809354	4.7028313	no
Total Cadmium	31.24437	2.0927212	---	9.9981984	1.1091422	---	1.1091422	1.4529763	3.4494323	0.0121178	0.0287683	yes
Chromium III	862.23964	358.50221	---	275.91668	190.00617	---	190.00617	248.90808	590.91919	2.0758934	4.928266	no
Chromium VI	16.219733	14.001573	---	5.1903146	7.4208338	---	5.1903146	6.7993122	16.141879	0.0567063	0.1346233	no
Total Copper	13.108579	12.64906	---	4.1947453	6.7040018	---	4.1947453	5.4951164	13.045658	0.0458293	0.1088008	no
Total Lead	68.719132	3.432329	---	21.990122	1.8191344	---	1.8191344	2.383066	5.6575079	0.0198748	0.0471836	no
Total Mercury	5.9857356	0.0530941	---	1.9154354	0.0281399	---	0.0281399	0.0368633	0.0875151	0.0003074	0.0007299	no
Total Nickel	878.3242	125.02637	---	281.06375	66.263976	---	66.263976	86.805809	206.08097	0.7239604	1.7187153	no
Total Zinc	108.49791	126.98754	---	34.71933	67.303395	---	34.71933	45.482322	107.97712	0.3793226	0.9005291	no
Total Cyanide	47.383259	7.14501	16994.539	15.162643	3.7868553	16994.539	3.7868553	4.9607804	11.77712	0.0413729	0.0982212	no
DIOXIN												
2,3,7,8 TCDD; dioxin	---	---	9.527E-07	---	---	9.527E-07	9.527E-07	9.527E-07	2.267E-06	7.945E-09	1.891E-08	no
VOLATILE COMPOUNDS												
Benzene	2321.6764	1488.5438	16.539375	742.93646	788.92819	16.539375	16.539375	16.539375	39.363713	0.1379384	0.3282934	no
Bromoform	3024.683	1938.4148	45.913305	967.89854	1027.3598	45.913305	45.913305	45.913305	109.27367	0.382917	0.9113424	no
Bromodichloromethane	---	---	4.366395	---	---	4.366395	4.366395	4.366395	10.39202	0.0364157	0.0866694	no
Carbon Tetrachloride	2818.22	1806.0998	1.58778	901.83038	957.23287	1.58778	1.58778	1.58778	3.7789164	0.0132421	0.0315162	no
Chloroform	2983.3904	1911.9518	92.6205	954.68491	1013.3344	92.6205	92.6205	92.6205	220.43679	0.772455	1.8384428	no
Dibromochloromethane	---	---	6.721602	---	---	6.721602	6.721602	6.721602	15.997413	0.0560582	0.1334184	no
1,2-Dichloroethane	12181.317	7806.585	8.99742	3898.0214	4137.4901	8.99742	8.99742	8.99742	21.41386	0.0750385	0.1785916	no
1,1-Dichloroethylene	1197.4854	767.427	0.767427	383.19533	406.73631	0.767427	0.767427	0.767427	1.8264763	0.0064003	0.0152328	no
1,3-Dichloropropylene	625.58289	400.91445	215.39559	200.18652	212.48466	215.39559	200.18652	262.24435	622.58009	2.1871179	5.192318	no
Ethylbenzene	3303.408	2117.04	10717.515	1057.0906	1122.0312	10717.515	1057.0906	1384.7886	3287.5516	11.549137	27.418181	no
Methyl Chloride	56777.325	36386.625	---	18168.744	19284.911	---	18168.744	23801.055	56504.794	198.5008	471.24998	no
Methylene Chloride	19923.68	12768.398	115.11405	6375.5774	6767.2507	115.11405	115.11405	115.11405	273.97144	0.9600512	2.2849218	no
1,1,2,2-Tetrachloro-ethane	962.11758	616.5879	2.38167	307.87763	326.79159	2.38167	2.38167	2.38167	5.6683746	0.0198631	0.0472742	no

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(*1) Toxic Parameters	(*2) Cu Instream Conc. ug/L	(*3) Effluent /Tech (Avg) ug/L	(*4) Effluent /Tech (Max) ug/L	(*5) MQL ug/L	(*6) Effluent 1=No 0=95 %	(*7) 95th % estimate Non-Tech ug/L	(*8) Numerical Criteria Acute FW ug/L	(*9) Chronic FW ug/L	(*10) HHNDW ug/L	(*11) HH Carcinogen Indicator "C"
VOLATILE COMPOUNDS (cont'd)										
Tetrachloroethylene				10			1290	645	2.5	C
Toluene				10			1270	635	46200	
1,1,1-Trichloroethane				10			5280	2640		
1,1,2-Trichloroethane				10			1800	900	6.9	C
Trichloroethylene				10			3900	1950	21	C
Vinyl Chloride				10					35.8	C
ACID COMPOUNDS										
2-Chlorophenol				10			258	129	126.4	
2,4-Dichlorophenol				10			202	101	232.6	
BASE NEUTRAL COMPOUNDS										
Benzidine				50			250	125	0.00017	C
Hexachlorobenzene				10					0.00025	C
Hexachlorabutadiene				10			5.1	1.02	0.11	C
PESTICIDES										
Aldrin				0.05			3		0.0004	C
Hexachlorocyclohexane (gamma BHC, Lindane)				0.05			5.3	0.21	0.2	C
Chlordane				0.2			2.4	0.0043	0.00019	C
4,4'-DDT				0.1			1.1	0.001	0.00019	C
4,4'-DDE				0.1			52.5	10.5	0.00019	C
4,4'-DDD				0.1			0.03	0.006	0.00027	C
Dieldrin				0.1			0.2374	0.0557	0.00005	C
Endosulfan				0.1			0.22	0.056	0.64	
Endrin				0.1			0.0864	0.0375	0.26	
Heptachlor				0.05			0.52	0.0038	0.00007	C
							2	0.014		
Toxaphene				5			0.73	0.0002	0.00024	C
Other Parameters:										
Fecal Col.(col/100ml)										
Chlorine				100			19	11		
Ammonia										
Chlorides										
Sulfates										
TDS										

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(*1) Toxic Parameters	(*12) WLAa Acute ug/L	(*13) WLAc Chronic ug/L	(*14) WLAh HHNDW ug/L	(*15) LTAa Acute ug/L	(*16) LTAc Chronic ug/L	(*17) LTAh HHNDW ug/L	(*18) Limiting A,C,HH ug/L	(*19) WQBL Avg 001 ug/L	(*20) WQBL Max 001 ug/L	(*21) WQBL Avg 001 lbs/day	(*22) WQBL Max 001 lbs/day	(*23) Need WQBL?
Tetrachloroethylene	1331.6864	853.43175	3.307875	426.13963	452.31883	3.307875	3.307875	3.307875	7.8727425	0.0275877	0.0656587	no
Toluene	1311.0401	840.20025	61129.53	419.53282	445.30613	61129.53	419.53282	549.58799	1304.7471	4.5835638	10.88159	no
1,1,1-Trichloroethane	5450.6232	3493.116	---	1744.1994	1851.3515	---	1744.1994	2284.9012	5424.4602	19.056076	45.239998	no
1,1,2-Trichloroethane	1858.167	1190.835	9.129735	594.61344	631.14255	9.129735	9.129735	9.129735	21.728769	0.076142	0.1812179	no
Trichloroethylene	4026.0285	2580.1425	27.78615	1288.3291	1367.4755	27.78615	27.78615	27.78615	66.131037	0.2317365	0.5515328	no
Vinyl Chloride	---	---	47.36877	---	---	47.36877	47.36877	47.36877	112.73767	0.3950555	0.9402322	no
ACID COMPOUNDS												
2-Chlorophenol	266.33727	170.68635	167.24616	85.227926	90.463766	167.24616	85.227926	111.64858	265.05885	0.9311492	2.2105908	no
2,4-Dichlorophenol	208.52763	133.63815	307.76469	66.728842	70.82822	307.76469	66.728842	87.414782	207.5267	0.7290393	1.7307727	no
BASE NEUTRAL COMPOUNDS												
Benzidine	258.07875	165.39375	0.0002249	82.5852	87.658688	0.0002249	0.0002249	0.0002249	0.0005353	1.876E-06	4.465E-06	no
Hexachlorobenzene	---	---	0.0003308	---	---	0.0003308	0.0003308	0.0003308	0.0007873	2.759E-06	6.566E-06	no
Hexachlorabutadiene	5.2648065	1.349613	0.1455465	1.6847381	0.7152949	0.1455465	0.1455465	0.1455465	0.3464007	0.0012139	0.002889	no
PESTICIDES												
Aldrin	3.096945	---	0.0005293	0.9910224	---	0.0005293	0.0005293	0.0005293	0.0012596	4.414E-06	1.051E-05	no
Hexachlorocyclohexane (gamma BHC, Lindane)	5.4712695	0.2778615	0.26463	1.7508062	0.1472666	0.26463	0.1472666	0.1929192	0.4579991	0.0016089	0.0038197	no
Chlordane	2.477556	0.0056895	0.0002514	0.7928179	0.0030155	0.0002514	0.0002514	0.0002514	0.0005983	2.097E-06	4.99E-06	no
4,4'-DDT	1.1355465	0.0013232	0.0002514	0.3633749	0.0007013	0.0002514	0.0002514	0.0002514	0.0005983	2.097E-06	4.99E-06	no
4,4'-DDE	54.196538	13.893075	0.0002514	17.342892	7.3633298	0.0002514	0.0002514	0.0002514	0.0005983	2.097E-06	4.99E-06	no
4,4'-DDD	0.0309695	0.0079389	0.0003573	0.0099102	0.0042076	0.0003573	0.0003573	0.0003573	0.0008503	2.979E-06	7.091E-06	no
Dieldrin	0.2450716	0.0736995	6.616E-05	0.0784229	0.0390607	6.616E-05	6.616E-05	6.616E-05	0.0001575	5.518E-07	1.313E-06	no
Endosulfan	0.2271093	0.0740964	0.846816	0.072675	0.0392711	0.846816	0.0392711	0.0514451	0.1221331	0.0004291	0.0010186	no
Endrin	0.089192	0.0496181	0.344019	0.0285414	0.0262976	0.344019	0.0262976	0.0344499	0.0817856	0.0002873	0.0006821	no
Heptachlor	0.5368038	0.005028	9.262E-05	0.1717772	0.0026648	9.262E-05	9.262E-05	9.262E-05	0.0002204	7.725E-07	1.838E-06	no
Toxaphene	0.75359	0.0002646	0.0003176	0.2411488	0.0001403	0.0003176	0.0001403	0.0001837	0.0004362	1.532E-06	3.638E-06	no
Other Parameters:												
Fecal Col.(col/100ml)	---	---	---	---	---	---	---	---	---	---	---	no
Chlorine	19.613985	14.55465	---	6.2764752	7.7139645	---	6.2764752	8.2221825	19.519838	0.068573	0.1627954	no
Ammonia	---	---	---	---	---	---	---	---	---	---	---	no
Chlorides	---	---	---	---	---	---	---	---	---	---	---	no
Sulfates	---	---	---	---	---	---	---	---	---	---	---	no
TDS	---	---	---	---	---	---	---	---	---	---	---	no
	---	---	---	---	---	---	---	---	---	---	---	no
	---	---	---	---	---	---	---	---	---	---	---	no

APPENDIX A-2, LA0075761, AI No. 20079

Documentation and Explanation of Water Quality Screen
and Associated Lotus Spreadsheet

Each reference column is marked by a set of parentheses enclosing a number and asterisk, for example (*1) or (*19). These columns represent inputs, existing data sets, calculation points, and results for determining Water Quality Based Limits for an effluent of concern. The following represents a summary of information used in calculating the water quality screen:

Receiving Water Characteristics:

Receiving Water: unnamed ditch, thence into Mill Bayou, thence into Bayou Macon, thence into the Tensas River
Critical Flow, Qrc (cfs): 0.5
Harmonic Mean Flow, Qrh (cfs): 0
Segment No.: 081001
Receiving Stream Hardness (mg/L): 25
Receiving Stream TSS (mg/L): 4.575
MZ Stream Factor, Fs:
Plume distance, Pf: N/A

Effluent Characteristics:

Company: West Carroll Parish Policy Jury
Facility flow, Qe (MGD): 0.045 MGD
Effluent Hardness: N/A
Effluent TSS: N/A
Pipe/canal width, Pw: N/A
Permit Number: LA0075761

Variable Definition:
Qrc, critical flow of receiving stream, cfs
Qrh, harmonic mean flow of the receiving stream, cfs
Pf = Allowable plume distance in feet, specified in LAC 33.IX.1115.D
Pw = Pipe width or canal width in feet
Qe, total facility flow , MGD
Fs, stream factor from LAC.IX.33.11 (1 for harmonic mean flow)
Cu, ambient concentration, ug/L
Cr, numerical criteria from LAC.IX.1113, Table 1
WLA, wasteload allocation
LTA, long term average calculations
WQBL, effluent water quality based limit
ZID, Zone of Initial Dilution in % effluent
MZ, Mixing Zone in % effluent

Formulas used in aquatic life water quality screen (dilution type WLA):
Streams:

$$\text{Dilution Factor} = \frac{Qe}{(Qrc \times 0.6463 \times Fs + Qe)}$$

$$\text{WLA a,c,h} = \frac{Cr}{\text{Dilution Factor}} - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Static water bodies (in the absence of a site specific dilution):

Discharge from a pipe: Discharge from a canal:

Critical Critical

$$\text{Dilution} = \frac{(2.8)\,Pw\,\pi^{1/2}}{Pf} \qquad \text{Dilution} = \frac{(2.38)(Pw^{1/2})}{(Pf)^{1/2}}$$

$$\text{WLA} = \frac{(Cr-Cu)\,Pf}{(2.8)\,Pw\,\pi^{1/2}} \qquad \text{WLA} = \frac{(Cr-Cu)\,Pf^{1/2}}{2.38\,Pw^{1/2}}$$

Formulas used in human health water quality screen, human health non-carcinogens (dilution type WLA):

Streams:

$$\text{Dilution Factor} = \frac{Qe}{(Qrc \times 0.6463 + Qe)}$$

$$\text{WLA a,c,h} = \frac{Cr}{\text{Dilution Factor}} - \frac{(Qrc \times 0.6463 \times Cu)}{Qe}$$

Formulas used in human health water quality screen, human health carcinogens (dilution type WLA):

$$\text{Dilution Factor} = \frac{Qe}{(Qrh \times 0.6463 + Qe)}$$

$$\text{WLA a,c,h} = \frac{Cr}{\text{Dilution Factor}} - \frac{(Qrh \times 0.6463 \times Cu)}{Qe}$$

Static water bodies in the absence of a site specific dilution (human health carcinogens and human health non-carcinogens):

Discharge from a pipe:

$$\text{Critical Dilution} = \frac{(2.8)\,Pw\,\pi^{1/2}}{Pf}$$

$$\text{WLA} = \frac{(Cr-Cu)\,Pf^{*}}{(2.8)\,Pw\,\pi^{1/2}}$$

Discharge from a canal:

$$\text{Critical Dilution} = \frac{(2.38)(Pw^{1/2})}{(Pf)^{1/2}}$$

$$\text{WLA} = \frac{(Cr-Cu)\,Pf^{1/2*}}{2.38\,Pw^{1/2}}$$

* Pf is set equal to the mixing zone distance specified in LAC 33:IX.1115 for the static water body type, i.e., lake, estuary, Gulf of Mexico, etc.

If a site specific dilution is used, WLA are calculated by subtracting Cu from Cr and dividing by the site specific dilution for human health and aquatic life criteria.

$$\text{WLA} = \frac{(Cr-Cu)}{\text{site specific dilution}}$$

Longterm Average Calculations:
LTAa = WLAa X 0.32
LTAc = WLAc X 0.53
LTAh = WLAh

WQBL Calculations:
Select most limiting LTA to calculate daily max and monthly avg WQBL

If aquatic life LTA is more limiting:
Daily Maximum = Min(LTAa, LTAc) X 3.11
Monthly Average = Min(LTAc, LTAc) X 1.31

If human health LTA is more limiting:
Daily Maximum = LTAh X 2.38
Monthly Average = LTAh

Mass Balance Formulas:

mass (lbs/day): (ug/L) X 1/1000 X (flow, MGD) X 8.34 = lbs/day

concentration(ug/L): $\frac{\text{lbs/day}}{\text{(flow, MGD) X 8.34 X 1/1000}}$ = ug/L

The following is an explanation of the references in the spreadsheet.

(*1)) Parameter being screened.

(*2)) Instream concentration for the parameter being screened in ug/L. In the absence of accurate supporting data, the instream concentration is assumed to be zero (0).

(*3)) Monthly average effluent or technolgy value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.

(*4)) Daily maximum technology value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.

(*5)) Minimum analytical Quantification Levels (MQL's). Established in a letter dated January 27, 1994 from Wren Stenger of EPA Region 6 to Kilren Vidrine of LDEQ and from the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". The applicant must test for the parameter at a level at least as sensitive as the specified MQL. If this is not done, the MQL becomes the application value for screening purposes if the pollutant is suspected to be present on-site and/or in the waste stream. Units are in ug/l or lbs/day depending on the units of the effluent data.

(*6)) States whether effluent data is based on 95th percentile estimation. A "1" indicates that a 95th percentile approximation is being used, a "0" indicates that no 95th percentile approximation is being used.

(*7)) 95th percentile approximation multiplier (2.13). The constant, 2.13, was established in memorandum of understanding dated October 8, 1991 from Jack Ferguson of Region 6 to Jesse Chang of LDEQ and included in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". This value is screened against effluent Water Quality Based Limits established in columns (*18) - (*21). Units are in ug/l or lbs/day depending on the units of the measured effluent data.

(*8)) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, acute criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations. Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used, however, a flow weighted TSS may be determined in site-specific situations.

Hardness Dependent Criteria:

Metal	Formula
Cadmium	$e^{(1.1280[\ln(\text{hardness})] - 1.6774)}$
Chromium III	$e^{(0.8190[\ln(\text{hardness})] + 3.6880)}$
Copper	$e^{(0.9422[\ln(\text{hardness})] - 1.3884)}$
Lead	$e^{(1.2730[\ln(\text{hardness})] - 1.4600)}$
Nickel	$e^{(0.8460[\ln(\text{hardness})] + 3.3612)}$
Zinc	$e^{(0.8473[\ln(\text{hardness})] + 0.8604)}$

Dissolved to Total Metal Multipliers for Freshwater Streams (TSS dependent):

Metal	Multiplier
Arsenic	$1 + 0.48 \times TSS^{-0.73} \times TSS$
Cadmium	$1 + 4.00 \times TSS^{-1.13} \times TSS$
Chromium III	$1 + 3.36 \times TSS^{-0.93} \times TSS$
Copper	$1 + 1.04 \times TSS^{-0.74} \times TSS$
Lead	$1 + 2.80 \times TSS^{-0.80} \times TSS$
Mercury	$1 + 2.90 \times TSS^{-1.14} \times TSS$
Nickel	$1 + 0.49 \times TSS^{-0.57} \times TSS$
Zinc	$1 + 1.25 \times TSS^{-0.70} \times TSS$

Dissolved to Total Metal Multipliers for Marine Environments (TSS dependent):

Metal	Multiplier
Copper	$1 + (10^{4.86} \times TSS^{-0.72} \times TSS) \times 10^{-6}$
Lead	$1 + (10^{6.06} \times TSS^{-0.85} \times TSS) \times 10^{-6}$
Zinc	$1 + (10^{5.36} \times TSS^{-0.52} \times TSS) \times 10^{-6}$

If a metal does not have multiplier listed above, then the dissolved to total metal multiplier shall be 1.

(*9)) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, chronic criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations. Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used, however, a flow weighted TSS may be determined in site-specific situations.
Hardness dependent criteria:

Metal	Formula
Cadmium	$e^{(0.7852[\ln(\text{hardness})] - 3.4900)}$
Chromium III	$e^{(0.8473[\ln(\text{hardness})] + 0.7614)}$
Copper	$e^{(0.8545[\ln(\text{hardness})] - 1.3860)}$
Lead	$e^{(1.2730[\ln(\text{hardness})] - 4.7050)}$
Nickel	$e^{(0.8460[\ln(\text{hardness})] + 1.1645)}$
Zinc	$e^{(0.8473[\ln(\text{hardness})] + 0.7614)}$

Dissolved to total metal multiplier formulas are the same as (*8), acute numerical criteria for aquatic life protection.

(*10)) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, human health protection, drinking water supply (HHDW), non-drinking water supply criteria (HHNDW), or human health non-primary contact recreation (HHNPCR) (whichever is applicable). A DEQ and EPA approved Use Attainability Analysis is required before HHNPCR is used, e.g., Monte Sano Bayou. Units are specified.

(*11)) C if screened and carcinogenic. If a parameter is being screened and is carcinogenic a "C" will appear in this column.

(*12)) Wasteload Allocation for acute aquatic criteria (WLAa). Dilution type WLAa is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the acute aquatic numerical criteria for that parameter. Units are in ug/L. Dilution WLAa formulas for streams:

$$WLAa = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAa formulas for static water bodies:
WLAa = (Cr-Cu)/Dilution Factor)
Cr represents aquatic acute numerical criteria from column (*8).

If Cu data is unavailable or inadequate, assume Cu=0.
If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

(*13)) Wasteload Allocation for chronic aquatic criteria (WLAc). Dilution type WLAc is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the chronic aquatic numerical criteria for that parameter. Units are in ug/L. Dilution WLAc formula:

$$WLAc = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAc formulas for static water bodies:
WLAc = (Cr-Cu)/Dilution Factor)
Cr represents aquatic chronic numerical criteria from column (*9).
If Cu data is unavailable or inadequate, assume Cu=0.
If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

(*14)) Wasteload Allocation for human health criteria (WLAh). Dilution type WLAh is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the human health numerical criteria for that parameter. Units are in ug/L. Dilution WLAh formula:

$$WLAh = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc,Qrh \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAh formulas for static water bodies:
WLAh = (Cr-Cu)/Dilution Factor)
Cr represents human health numerical criteria from column (*10).
If Cu data is unavailable or inadequate, assume Cu=0.
If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

(*15)) Long Term Average for aquatic numerical criteria (LTAa). WLAa numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.32. WLAa X 0.32 = LTAa.
If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

(*16)) Long Term Average for chronic numerical criteria (LTAc). WLAc numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.53. WLAc X 0.53 = LTAc.
If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

(*17)) Long Term Average for human health numerical criteria (LTAh). WLAh numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 1. WLAc X 1 = LTAh.
If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then a blank shall appear in this column.

(*18)) Limiting Acute, Chronic or Human Health LTA's. The most limiting LTA is placed in this column. Units are consistent with the WLA calculation. If standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then the type of limit, Aquatic or Human Health (HH), is indicated.

(*19)) End of pipe Water Quality Based Limit (WQBL) monthly average in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 1.31 to determine the average WQBL ($LTA_{\text{limiting aquatic}} \times 1.31 = WQBL_{\text{monthly average}}$). If human health criteria was the most limiting criteria then $LTAh = WQBL_{\text{monthly average}}$. If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then either the human health criteria or the chronic aquatic life criteria shall appear in this column depending on which is more limiting.

(*20)) End of pipe Water Quality Based Limit (WQBL) daily maxium in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 3.11 to determine the daily maximum WQBL ($LTA_{\text{limiting aquatic}} \times 3.11 = WQBL_{\text{daily max}}$). If human health criteria was the most limiting criteria then LTAh is multiplied by 2.38 to determine the daily maximum WQBL ($LTA_{\text{limiting aquatic}} \times 2.38 = WQBL_{\text{daily max}}$). If water quality standards are being applied at end-of-pipe, such as in the case of certain TMDL's, then either the human health

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criteria or the acute aquatic life criteria shall appear in this column depending on which is more limiting.

(*21)) End of pipe Water Quality Based Limit (WQBL) monthly average in terms of mass, lbs/day. The mass limit is determined by using the mass balance equations above. Monthly average WQBL, ug/l/1000 X facility flow, MGD X 8.34 = monthly average WQBL, lbs/day.

(*22)) End of pipe Water Quality Based Limit (WQBL) monthly average in terms of mass, lbs/day. Mass limit is determined by using the mass balance equations above. Daily maximum WQBL, ug/l/1000 X facility flow, MGD X 8.34 = daily maximum WQBL, lbs/day.

(*23)) Indicates whether the screened effluent value(s) need water quality based limits for the parameter of concern. A "yes" indicates that a water quality based limit is needed in the permit; a "no" indicates the reverse.

BIOMONITORING FREQUENCY RECOMMENDATION AND RATIONALE FOR ADDITIONAL REQUIREMENTS

Permit Number: **LA0068101**
Facility Name: **Washington Parish Government/Choctaw Road Landfill**
Previous Critical Biomonitoring Dilution: **39% (10:1 ACR)**
Proposed Critical Biomonitoring Dilution: **12%**
Outfall discharge flow: **0.045 mgd**
Receiving stream 7Q10: **0.5 cfs**
Date of Review: **02/19/10**
Name of Reviewer: **Laura Thompson**

Recommended Frequency by Species:

***Pimephales promelas* (Fathead minnow):** **Once/Quarter**[1]
***Ceriodaphnia dubia* (water flea):** **Once/Quarter**[1]

Recommended Dilution Series: **5%, 7%, 9%, 12%, and 16%**

Number of Tests Performed during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow):** **18**
***Daphnia pulex* (water flea):** **18**
***Ceriodaphnia dubia* (water flea):** **N/A – Testing of species was not required**

Number of Failed Tests during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow):** **No failures on file during the past five years**
***Daphnia pulex* (water flea):** **No failures on file during the past five years**
***Ceriodaphnia dubia* (water flea):** **N/A – Testing of species was not required**

Failed Test Dates during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow):** **No failures on file during the past five years**
***Daphnia pulex* (water flea):** **No failures on file during the past five years**
***Ceriodaphnia dubia* (water flea):** **N/A – Testing of species was not required**

Previous TRE Activities: **N/A – No previous TRE Activities**

[1] If there are no lethal or sub-lethal effects demonstrated after the first year of quarterly testing, the permittee may certify fulfillment of the WET testing requirements in writing to the permitting authority. If granted, the biomonitoring frequency for the test species may be reduced to not less than once per year for the less sensitive species (usually *Pimephales promelas*) and not less than twice per year for the more sensitive species (usually *Ceriodaphnia dubia*). Upon expiration of the permit, the biomonitoring frequency for both species shall revert to once per quarter until the permit is re-issued.

Additional Requirements (including WET Limits) Rationale / Comments Concerning Permitting:

The Washington Parish Government/Choctaw Road Landfill owns and operates an existing municipal solid waste landfill serving Washington Parish in Franklinton, Washington Parish, Louisiana. LPDES Permit LA0068101, effective January 1, 2005, contained freshwater acute biomonitoring as an effluent characteristic of Outfall 002 for *Daphnia pulex* and *Pimephales promelas*. The effluent series consisted of 16%, 22%, 29%, 39%, and 52% concentrations, with the 39% effluent concentration being defined as the critical biomonitoring dilution. The testing was to be performed quarterly for *Daphnia pulex* and *Pimephales promelas*. Data on file shows that the permittee has complied with the biomonitoring requirements contained in LA0068101 with no toxicity failures on file during the past five years.

The previous permit's biomonitoring was based on an Outfall 002 discharge flow of 0.013 mgd. The current discharge is 0.045 mgd. Therefore, it is recommended that freshwater chronic biomonitoring be an effluent characteristic of Outfall 002 (discharge of 0.045 mgd of treated leachate, treated contact stormwater, treated washwater, and treated sanitary wastewater) in LA0068101. The effluent dilution series shall be 5%, 7%, 9%, 12%, and 16% concentrations, with 12% being the defined critical biomonitoring dilution. In accordance with the Environmental Protection Agency (Region 6) WET testing frequency acceleration(s), the biomonitoring frequency shall be once per quarter for *Ceriodaphnia dubia* and *Pimephales promelas*. If there are no significant lethal effects demonstrated at or below the critical dilution during the first four quarters of testing, the permittee may certify fulfillment of the WET testing requirements to the permitting authority and WET testing may be reduced to not less than once per six months for the more sensitive species (usually *Ceriodaphnia dubia*) and not less than once per year for the less sensitive species (usually *Pimephales promelas*) for the remainder of the term of the permit. Upon expiration of the permit, the monitoring frequency for both test species shall revert to once per quarter until the permit is re-issued.

This recommendation is in accordance with the LDEQ/OES Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, Water Quality Management Plan Volume 3. Version 7 (October 7, 2009), and the Best Professional Judgment (BPJ) of the reviewer.